

1 that pretty much if you ignore micropayments, nothing is
2 cheaper than 6.1 percent as a billing solution.

3 And Square, for example, is not that prominent. If we
4 take PayPal, that's a very prominent global provider,
5 8.8 percent. That would mean that that discount would have to
6 be on the order of 9 percent for a developer to say, "Okay. I
7 will now use PayPal instead of Google Play Billing."

8 That's what this describes here.

9 So what Google is able to do by playing with these two
10 prices, the bundle versus only distribution, is replace the
11 coercive tie with a tie through economic incentives. And as
12 long as they're pricing the delta below their costs, this is
13 not different, conceptually, from predatory pricing, so to
14 speak. That's the idea here.

15 THE COURT: In other words -- that makes sense to me.
16 So no below-cost pricing, basically. Okay.

17 DR. TADELIS: Exactly.

18 THE COURT: And is it your understanding that costs is
19 something that can be easily determined through GAAP
20 procedures?

21 I mean, I hear in other cases tremendous fights about what
22 constitutes cost. So this has to be something that is a
23 readily measurable number.

24 DR. TADELIS: Yes, I believe that is feasible, not too
25 difficult.

1 THE COURT: Why do you believe that?

2 DR. TADELIS: Here's what I would look for. I've been
3 teaching cost allocations for economic decisions for about
4 20 years, so I'm going to share exactly what I would share in
5 my MBA classroom.

6 If we take the product Google Play Billing, there are
7 going to be costs associated with it. Those costs are going to
8 start with the obvious variable costs of payment processing.
9 Those are typically on the order of 2 1/2 to 3-plus percent.

10 Then on top of that, you're going to need, say, servers
11 that are dedicated to that. You're going to need customer
12 service to deal with fraud, and you're going to need some
13 engineering that deals with fraud detection. In other words,
14 there will be someone at Google who is in charge of Google Play
15 Billing. There will be an army of people and services under
16 that person that is part of that business.

17 The test that I want is simple: If you shut that down,
18 what falls off your balance sheet?

19 Those are the costs.

20 THE COURT: Did we see any records to that effect at
21 the trial? I don't remember.

22 DR. TADELIS: I have not seen records of that.

23 THE COURT: We saw some cost records, as I recall, but
24 was it for this?

25 MR. EVEN: I believe what we saw, internal analysis by

1 Google that reached a bottom-line number in the 6 to -- I think
2 in the 6 percent range where Google said, "At 6 percent, we
3 think we're kind of breaking even, and we think that the cost
4 to developers from others would be 10 percent."

5 THE COURT: We did see some internal Google financial
6 documents calculating the cost of the 6 percent figure.

7 MR. EVEN: I believe they were kind of strategic
8 analysis of Google in other areas where they said, "We talked
9 to the finance folks, and the finance folks told us 6 percent
10 is, more or less, roughly our internal cost."

11 Back at the time. Obviously, these things changes from
12 year over year.

13 THE COURT: All right. Thank you. Okay.

14 MR. POMERANTZ: My name is Glenn Pomerantz.

15 That is not what that evidence showed. That was not the
16 financial analysis as -- I think Mr. Even was saying it was
17 strategic analysis.

18 The kind you're talking about, really a careful
19 consideration of the costs, that's not what was in evidence in
20 this case.

21 THE COURT: Okay. I'll go back and look, but
22 all right.

23 Okay. Well, who's handling this for the defendant?

24 Dr. Leonard. Okay.

25 DR. LEONARD: I think this --

1 THE COURT: It seems like a relatively straightforward
2 solution from your colleague.

3 DR. LEONARD: Well, I'll disagree with that a little
4 bit.

5 First of all, I'm Greg Leonard, just to identify myself.

6 Let me just start at the end. Is 4 percent, you know,
7 enough of a floor on the price of Google Play Billing for
8 rivals to complete?

9 We actually have evidence about that because we have
10 developers in the case who testified about it. And, in fact,
11 Mr. Sweeney testified that to get -- I think he called it an
12 equivalent to Google Play Billing would be 2 to 4 percent. So
13 4 percent, obviously, should be enough for Epic to do it.

14 There are other -- if you look at -- I don't want to go
15 through them all, but on page 12 of my slide deck, you'll see
16 some other evidence that I summarized on that point.

17 The other thing I want to get to is: If the floor is to
18 be set according to cost, there's, first of all, a question of
19 what cost are we talking about?

20 And Your Honor may be familiar in antitrust predatory
21 pricing cases, you know, you could look at average variable
22 cost.

23 Here, as I understand the proposed injunction, they're
24 saying you should look at average total cost. And that really
25 has the danger of chilling competition -- right? -- because it

1 would prevent Google from discounting their price for Google
2 Play Billing to meet competition that might be a price above
3 their variable cost, and then it would mean the transactions
4 would contribute to their variable profit and contribute to
5 paying their fixed costs.

6 THE COURT: So you would use average variable costs?

7 DR. LEONARD: Well, if you were going to do this at
8 all. But now let me get to my real point, which is, if I were
9 Your Honor, I would not want to be engaging every year in
10 proceedings on what Google's costs are, and that's definitely
11 going to happen.

12 THE COURT: I don't intend to. If someone has a
13 problem with it, they can come back and say you're cheating.
14 But I don't intend to be proactive. This is just -- sets a
15 rule for other people to test. I'm not going to do it. I'm
16 not an accountant. I'm not --

17 DR. LEONARD: No, no, I understand. But what I'm
18 saying is I think you'll get those proceedings whether you want
19 them or not.

20 THE COURT: If they're good, then they'll win; and if
21 they're frivolous, they'll be dismissed. I mean, that just
22 sort of comes with injunctions.

23 But what I'm looking for now is -- so the proposition is:
24 Sever the tie with Google -- Google billing.

25 And that seems perfectly appropriate given the antitrust

1 verdict. Is there any reason that you would say it's not?

2 DR. LEONARD: Well, I think Dr. Gentzkow actually will
3 address that part of it. I was really going to talk about the
4 billing. But let me just say a couple of things about it
5 because I do have some thoughts about it.

6 I mean, Number 1 is, user choice billing does sever the
7 tie in the sense that there's going to be an alternative
8 billing system, if a developer wants to do it, up there that a
9 user can choose from.

10 And secondly, if you think about this --

11 THE COURT: That's not consistent with the evidence at
12 trial.

13 DR. LEONARD: In what sense?

14 THE COURT: User play billing was not a true
15 alternative and looked -- the conclusion of the jury from the
16 evidence that I see is that that was a fig leaf, not a
17 decoupling of a tie.

18 So, you know, I'm not going to have a situation where
19 Google gets, in all circumstances, to tell every developer:
20 You must offer our billing system.

21 You must offer it? No. They can bargain for that.
22 Developers can negotiate that. If they want to do, that's
23 fine.

24 It's none of my business, but I'm not going to get into a
25 situation, given the evidence at trial, where Google can shove

1 that down developers' throats. That's just not going to
2 happen.

3 So what I would like to hear is a very straightforward
4 proposition. Just decouple and let developers bill any way
5 they want. They may choose Google. They may choose not.

6 But what's wrong with that from an antitrust perspective?

7 DR. LEONARD: Well, I think that there are reasons why
8 users -- from a developer's point of view, that may be what a
9 developer would want. But from a user's point of view, as I
10 understand, users may want to have a single -- an option to
11 have a single billing system on all the apps that they might
12 purchase or are making that purchases from.

13 And that's one, I think, reason to have Google Play
14 Billing alongside an alternative billing system. And if you
15 think about it, Google --

16 THE COURT: But isn't that something a developer would
17 rapidly pick up on? I mean, if consumers -- okay. What I hear
18 you saying -- maybe I'm wrong, you can correct me.

19 You're saying: Consumers may want single-point billing.
20 All right? No matter where they shop, they want to have just
21 one pay point. They don't want to have to give their credit
22 card five different times to five different stores.

23 Okay. That's fine. But if they don't want to do that,
24 they won't buy from that store, and the developer will rapidly
25 realize this was a bad idea. We'll do something else.

1 But that's exactly what we want to do. We want to open up
2 the opportunity to compete. Let developers and users make
3 these choices which they cannot do now because they must use
4 Google's proprietary system.

5 That's what we're trying to get at. I just don't see
6 anything wrong -- I mean, yes, of course, there may be some
7 decision points down the road as the system shakes out. That's
8 not a reason not to do it.

9 DR. TADELIS: May I add something, Your Honor?

10 THE COURT: Yeah.

11 DR. TADELIS: Even now, Google being the monopolist
12 doesn't offer unified billing for their users because they
13 prohibit the use of Google Play Billing for physical good apps.

14 THE COURT: Oh, yes. That's right. I remember that.

15 DR. TADELIS: Because on Amazon you can't use Google
16 Play Billing, and on Uber you can't use Google Play Billing,
17 and on Walmart -- and we could stay here for five more hours
18 and me listing all those --

19 THE COURT: Well, the relevant argument was just
20 digital services --

21 DR. TADELIS: I understand.

22 THE COURT: -- for that reason.

23 DR. TADELIS: Exactly.

24 THE COURT: It was for that reason. I do know that.
25 So that -- that is an important observation because those are

1 huge touchpoints in the app world. But anyway -- okay. Go
2 ahead.

3 DR. GENTZKOW: Let me just jump in with one small
4 point, and then I'll hand it back to Dr. Leonard.

5 This is Matthew Gentzkow again. Thanks.

6 Just on the question of whether developers can do this
7 themselves if there's an incentive to, I think the one thing
8 that's important from an economic point of view to recognize is
9 this offering users of digital goods a unified billing system
10 has the property of a collective action problem because that's
11 a benefit that you get when there's consistency across all of
12 the apps.

13 THE COURT: But just to jump in, we just were
14 reminded, timely, that that, in fact, is not true for an
15 enormous number of the highest end apps. Walmart, Amazon, Uber,
16 you don't do it. You can't pay through Google.

17 So it already exists that you can't -- the Google world is
18 already fragmented that way.

19 DR. GENTZKOW: It is fragmented in the sense that
20 there are different things for physical goods. But for digital
21 goods, there's a specific value to consistency. Things like
22 being able to track all of my subscriptions; parental controls
23 on apps that I can use across all of the apps; being able to
24 get refunds for digital goods that I've purchased in different
25 apps.

1 Those are all things where what I need is consistency
2 across the set of digital goods that I have purchased, and
3 that's something which provides a collective benefit to users
4 when it's consistent. And an individual developer may have
5 financial incentives to do something different that's not --
6 they are not individually going to take a count of what is the
7 cost of imposing or creating that inconsistency. So I think
8 that's the one sense --

9 THE COURT: That may be true, but if the consumer
10 doesn't like that, they won't do business with that app store
11 If they say, "I'm a busy person and I hate doing math. I just
12 want to have one place where I put my credit card," they won't
13 do business with an app store that doesn't offer that. So the
14 market will correct, and the app store will go out of business
15 maybe, or lose an enormous amount of revenue.

16 So I'm not -- I'm just -- this is akin to the argument of
17 we need to be a monopoly to protect you. Now you're saying we
18 need to be a monopoly because, you know, the consumer's life is
19 going to require payment headaches. That's not -- I'm not
20 buying that.

21 DR. GENTZKOW: Yeah. I just -- I just want to be
22 clear that, in that instance, if a developer decides to offer a
23 different billing system and chooses not to offer the
24 consistent one, the costs of that don't just fall on that
25 developer or that developer's immediate user as they fall more

1 broadly. So there is a form of collective action problem there
2 in making that decision.

3 THE COURT: Okay.

4 DR. TADELIS: I could just restate what you said, Your
5 Honor. If I --

6 THE COURT: Do it for me.

7 DR. TADELIS: If I am an app developer and I'm going
8 to want to use my own system and it's going to say you have to
9 put in your credentials and say 30 percent or 60 percent of
10 users don't like that hassle, there will be another app
11 developer who could create the exact same app and use Google
12 Play Billing and get all those customers, all those users to
13 use their app.

14 THE COURT: Another competition point.

15 DR. TADELIS: That's the competition point, exactly.

16 THE COURT: Another opportunity to compete. Okay.

17 Well, that seems to solve Google billing.

18 Is there anything else?

19 DR. TADELIS: Could I just make a comment about the
20 average variable costs that --

21 THE COURT: Yes, please. Yeah.

22 DR. TADELIS: -- put in?

23 I think that's erroneous for at least two reasons, and I
24 also think that I'm being conservative in what I'm suggesting
25 or what the remedy is suggesting.

1 First of all, the way I understand it, the whole debate
2 about average variable/average total is to determine liability.
3 Liability was determined here already in court. And now we're
4 asking: How do we make sure that competition could prevail in
5 billing solutions?

6 Second, if I think about the following: Right now,
7 there's only one product. It's Google Play Billing. So
8 whatever Google has to spend annually to maintain that product,
9 any other provider is going to have to spend similarly unless
10 they're more efficient -- which of course, they should have a
11 benefit from being more efficient.

12 What I'm not including here is any sunk costs that Google
13 may have incurred years ago in developing the first stage,
14 which means that this is disadvantaging de novo suppliers of
15 these type of billing solutions. So PayPal, Stripe, clearly,
16 they already are in this business. But if someone new wants to
17 come in, they would even have to invest sunk costs that are not
18 even measured as part of the ongoing business.

19 THE COURT: Is that something that could be solved
20 with a two-year horizon? Or I mean, maybe --

21 DR. TADELIS: Oh, no, no. This is not about the
22 two-year horizon. This is just about -- this is an ongoing
23 business that operates and provides billing solutions. That
24 business is going to have to spend, not only those variable
25 costs that we discussed -- payment processing -- but a whole

1 host of other costs that should be on the ledger of any
2 reasonable accounting, from what I understand.

3 THE COURT: What do you -- just -- this may be unfair
4 to ask on the fly, but can you ballpark what the difference
5 would be between using average variable cost and average total
6 cost?

7 DR. TADELIS: Oh, sure. So Dr. Leonard, in his
8 report, quotes Sweeney -- Mr. Sweeney, as well as others, that
9 are throwing out numbers of the 2.6, 3, 3.2. Those are all
10 payment processing. Those are not payment solutions.

11 There was testimony in this courtroom, I believe by
12 Mr. Allison, who heads the Epic store, where he, I believe,
13 quoted that the payment processing is somewhere between 4 and
14 6 percent. And, again, I want to --

15 THE COURT: There was a lot of evidence about
16 6 percent being kind of the conver- -- figure on which multiple
17 people converged. Yeah.

18 DR. LEONARD: Your Honor, can I -- if I may?

19 THE COURT: Just before -- let him just finish this.

20 DR. LEONARD: Okay.

21 DR. TADELIS: So here we see these companies that are
22 providing -- this is Slide Number 3 -- that are providing
23 payment processing solutions for -- payment solution products
24 for web, right, because they're not allowed on Android. And we
25 see these numbers all seem to be in this similar ballpark, 6.1,

1 6, 8.8, and there are many others.

2 And these are companies for whom payment solutions is
3 their bread and butter. You'd expect them to be relatively
4 efficient. And there is competition here. These prices are
5 meaningful. All the prices we see on Google Play are not
6 meaningful because they're happening within the bubble of a
7 monopoly.

8 THE COURT: Okay.

9 DR. LEONARD: And I would say that -- I mean, who
10 knows what these numbers are for, what kind of bells and
11 whistles are being offered here that a developer may not need?
12 And we shouldn't be valuing this at the bell-and-whistle price.
13 We should be figuring out what the cost would be for a
14 developer to get processing.

15 And, again, we have testimony, including from Mr. Sweeney,
16 about the numbers there. So that's Point Number 1.

17 Point Number 2 is, it's not easy to figure out what
18 Google's costs are. Remember, that's what the proposal says;
19 it says it would be Google's cost, average total cost of
20 processing.

21 Dr. Tadelis said, "Oh, there must be a group of people at
22 Google who do Google Play Billing customer support." It
23 actually turns out not to be true. This I actually know. The
24 cost for customer support are for all of Play. And some of
25 those people may work on Google Play issues, but figuring out

1 how much of their costs would be associated with Google Play
2 Billing versus other aspects of Play -- which, of course, are
3 significant -- would be very difficult and would require --

4 THE COURT: Well, then if that's fair, then we have to
5 use a proxy, and the proxy would be the numbers in Slide 3.

6 I mean, look, I'm not going to -- this has also been a
7 consistent theme in Google's objections. "It's just too hard
8 to do. We can't figure it out."

9 Okay. Then if you can't do it, we'll go to a proxy, and
10 the best next proxy is 6.1 percent from Stripe.

11 DR. LEONARD: I think -- but shouldn't it be what the
12 developers themselves said it should be, which is less than
13 4 percent?

14 THE COURT: Sweeney is one developer. There are
15 3 million -- there are 3 million apps. 3 million different
16 developers may be --

17 DR. TADELIS: Mr. Sweeney talked about payment
18 processing.

19 THE COURT: What's that?

20 DR. TADELIS: Mr. Sweeney spoke about payment
21 processing.

22 THE COURT: Talked about payment processing. So if
23 you-all can't do it, the answer is -- and it doesn't get
24 done -- the answer is, I'll take the next best substitute,
25 which is probably one of these numbers.

1 DR. LEONARD: Yeah. But I'm saying to you that I
2 don't think those numbers are the accurate number that you
3 would want to use, and that the testimony we got from
4 developers --

5 THE COURT: Let me put it this way: There's going to
6 be a number. And if you can't give it to me, I will take what
7 I think is the next best reasonable -- look, this is -- the
8 touchstone here is reasonable.

9 Okay?

10 DR. LEONARD: Right.

11 THE COURT: We all know what Stripe does. They
12 process financial transactions for other people.

13 If Google is going to process a financial transaction for
14 a third-party developer -- okay? -- why is it different from
15 Stripe?

16 If you can't come up with a number yourself because it's
17 too hard and your accounting doesn't do it, nobody knows, I
18 don't have an alternative but to take a proxy.

19 DR. LEONARD: Well, again, I think 4 percent is the
20 number, so I'm offering that up to you based, again, on what
21 developers themselves said.

22 Also, Google's own costs, the 6 percent, that's -- turns
23 out to be quite high because there are certain relatively
24 rarely used forms of payment that Google offers, like direct
25 carrier billing that are very expensive. But I find it very

1 doubtful than an entrant into the space would offer those.

2 Google sort of offered them as a legacy-type thing.
3 They've been declining over time, but they do push up that
4 6 percent -- to 6 percent. If you look just at credit cards,
5 debit cards, PayPal, the number is more like, again, 4 percent
6 or less.

7 So I think 4 percent is a reasonable number to do here.
8 And remember, this is going to be the floor on what Google Play
9 Billing can charge. So if that floor is too high and Google
10 Play -- Google can charge -- is constrained on how much they
11 can cut their price to compete, there's going to be less
12 competition, and there's going to be higher prices in the
13 marketplace overall.

14 So I think it's pretty important to get, as you said, a
15 reasonable number here that will not chill competition from
16 Google. Yes, we want to try to correct the issues that exist
17 in the marketplace, but at the same time, we also don't want to
18 overly handcuff Google.

19 THE COURT: Oh, for sure. That goes without -- I
20 understand, but I'm not going to accept "We don't know, so do
21 whatever you want." That is --

22 DR. LEONARD: No, no. Yeah. And I'm not offering
23 that. I'm saying 4 percent is the right number.

24 THE COURT: All right.

25 DR. LEONARD: Could I just add one other thing?

1 THE COURT: Sure. Yeah.

2 DR. LEONARD: I mean, the logic of this is that there
3 was market power in app distribution, and that created the
4 ability for Google to form the tie and then have market power
5 in this billing system stuff.

6 It seems to me that once you've got strong remedies which,
7 Your Honor, of course is --

8 THE COURT: On the app?

9 DR. LEONARD: Distribution side -- it solves itself.
10 And you're probably going to get, you know,
11 vertically-integrated firms competing -- in other words, ones
12 that have their own billing system -- they're going to come in
13 and they're going to be app store with a billing system;
14 they're going to compete with Play. And in that situation, you
15 don't really have to worry about the price of Google Play.

16 THE COURT: I'm glad you mentioned it because I am
17 thinking. Look, I want to make -- the injunction has to be
18 crystal clear, simple, and direct. So, obviously, both as a
19 legal matter, tying, and just as a conceptual matter, it has
20 occurred to me that the reforms that maybe I may order for the
21 app distribution market are going to have impacts on how people
22 bill. And so why not just say: You cannot require anyone to
23 use -- any developer to use Google billing system.

24 Stop. Just stop at that point.

25 Why isn't that enough?

1 DR. TADELIS: The reason is that all the remedies that
2 Dr. Bernheim explained in order to open up competition
3 distribution are necessary. They do not guarantee that Google
4 will be dislodged from its strong monopoly position at the
5 moment because it has those two sides of the market there.

6 Remember that we discussed or -- here in the courtroom,
7 this whole idea of these apps are going to try, they're going
8 to get the catalog, but after two years, if they don't get
9 enough traction, they're just going to die; that is a
10 possibility.

11 There is a possibility if the only thing we do is
12 everything we discussed and sever the tie, but don't put limits
13 on Google Play Billing add-on price that creates an economic
14 tie, that in four years, or six years, we are exactly where we
15 are today, everything expires and --

16 THE COURT: I don't see how that would be true. If
17 there are fundamental reforms in the app distribution market,
18 and I decouple Google Play Billing from Google App Store,
19 totally, can't require anybody to use it, no user choice, none
20 of that --

21 DR. TADELIS: Right.

22 THE COURT: -- it seems to be the world fixes itself,
23 and I don't have to worry about 4 percent, 6 percent, Stripe,
24 or anything else.

25 And I'm really not attracted to the idea of having

1 vagaries like average total cost, average variable cost. It
2 just doesn't make a lot of sense to me.

3 So I am not hearing a good reason why not just to stop
4 there from an antitrust perspective.

5 DR. BERNHEIM: May I, Your Honor?

6 THE COURT: Ask your colleague.

7 DR. TADELIS: I have something I would like to say
8 about that.

9 THE COURT: Okay. Please.

10 DR. BERNHEIM: My concern there isn't so much that the
11 other remedies will fail. My concern is that the other
12 remedies will take time to work.

13 THE COURT: Yes.

14 DR. BERNHEIM: Because competition doesn't burst out
15 all of a sudden. So there will be a period of time during
16 which Google Play continues to have monopoly power, probably
17 several years.

18 During that period of time, if it uses that monopoly power
19 to effectuate a tie which was found to be, by itself, a
20 violation of the antitrust law, it's doing something, you know,
21 that the other -- that is -- that is contrary to the antitrust
22 law, that the other remedies may resolve and probably will
23 resolve in a longer term, but not during this shorter period of
24 time.

25 THE COURT: Okay. So you're saying there's going to

1 be a covert or de facto tie, but how?

2 I mean, if -- let's say I take, across the board,
3 everything we've discussed in the app store side and ban the
4 forced use of Google Play Billing, I just -- I'm not seeing how
5 a covert tie can emerge even for a six-year period.

6 DR. TADELIS: Let me explain that, Your Honor.

7 So here we could go back to Slide Number 8.

8 THE COURT: Eight. Okay.

9 DR. TADELIS: Yes.

10 So Google chose the 4 percent not based on cost, because
11 we've seen an internal document where they estimated their
12 break-even cost to be 6 percent.

13 The 4 percent was set in a very safe zone where, if we
14 charged 30 percent for everything and only 26 percent for
15 distribution without GPB, it is in no developer's incentive
16 economically to adopt anything but GPB. Because if we go back
17 to Slide 3, everything else is going to cost 6 percent or more,
18 I might as well pay 30 than 32 or 33 or 38.

19 So by allowing Google to strategically manipulate the
20 difference between fees with and fees without billing
21 solutions, they could effectively create an economic tie that
22 works just as good as the coercive tie.

23 We need to create a gap that's large enough for a
24 reasonable competitor, like Stripe, to come in and say, "We
25 could offer this service. We could offer it as cheap or maybe

1 even a bit cheaper than Google," because it is their bread and
 2 butter. And now a developer will have the incentive to pay
 3 Google the fat fee for distribution and pay a smaller fee for
 4 the add-on --

5 THE COURT: If that's the case -- I understand what
 6 you're saying.

7 If that's the case, why look at Google's costs at all?
 8 Why not just look at what is the most efficient rival able to
 9 offer as an alternative and use that?

10 DR. TADELIS: So I don't want to prevent Google from
 11 competing on the merits. Let's imagine that tomorrow, after an
 12 injunction is put in place, Mr. Pichai says, "Okay. We need to
 13 make our billing system the best, the fastest, the nimblest
 14 that we can. I'm going to take 500 engineers from Search and
 15 200 engineers from Play, and put them on Google Play Billing,"
 16 and in six months Google manages to create a product that is
 17 actually less costly than Stripe or Square --

18 THE COURT: Maybe they can actually do 4 percent.

19 DR. TADELIS: Maybe they can. I don't want to prevent
 20 them from being able to compete on the merits.

21 Now, if you feel more comfortable saying, "Well, from
 22 Slide 3, I see there is a competitive market where the lowest
 23 places seem to be around 6, even 5.5 from micropayments, but
 24 that's a bit of an anomaly, so 6. I feel comfortable that that
 25 is representative of an efficient competitive solution," then

1 all power to you, Your Honor.

2 But then if Google is able to do something more
3 effectively and show that their costs are cheaper, then that
4 would put them at a disadvantage.

5 THE COURT: Well, why not put the burden on Google to
6 do that then? They can come in and tell me.

7 DR. TADELIS: That's your choice, Your Honor.

8 THE COURT: I mean, I would set Stripe 6 percent,
9 PayPal, whatever it is. And Google innovates and wants me to
10 do a different number, they can come and prove it.

11 DR. TADELIS: I'm perfectly fine with that.

12 THE COURT: I just don't want to be involved in
13 adjudicating costs. It's just not the right thing for a
14 federal judge to be doing. Once is probably too much, but
15 certainly not a constant basis.

16 So why not just do that? You can always come back and
17 tell me, "We've cracked the code, and we can deliver all this
18 for 3 percent now."

19 DR. LEONARD: I think the problem is: Where do these
20 Stripe numbers come from?

21 I mean, are these offers that Stripe made to actually
22 process and handle transactions within Play? Because if they
23 weren't, then I don't know that it's really a good estimate of
24 what Stripe would be willing to do.

25 THE COURT: If you want me to use 4 and they want 6,

1 I'll do 5. I mean, this is how things get done in a reasonable
2 fashion. I'll do 5. I have no touchpoint or data from you,
3 Google -- not you personally -- from Google that gives me any
4 number whatsoever, and all I hear is "We can't tell you."

5 So the answer is going to be: I have to do something to
6 replace that. So if you don't like 6 percent, and you think
7 Mr. Sweeney has committed to 4, then I'll take the average.
8 I'll take the middle number, 5.

9 I mean, I just need a reasonable proxy, and that's really
10 all that we get here. But it has to be concrete and does not
11 require me to be a CPA in my spare time, which I am not.

12 DR. LEONARD: Something else, again, I'd just urge you
13 to look at, is in my statement. I talk about a document, the
14 same one that Dr. Tadelis was looking at, in which Google
15 estimates its costs, again, for various forms of payment.

16 And for credit cards and debit cards and everything, we're
17 talking about less than 4 percent in the United States. So I
18 really do think that 4 percent is the right number, and I think
19 I've got, again, some evidence that could help you get to that
20 point, Your Honor.

21 DR. TADELIS: If I may, Your Honor.

22 THE COURT: Yes.

23 DR. TADELIS: All the numbers he's referring to are
24 payment processing, not for payment solution products.

25 THE COURT: I don't think we had any evidence about

1 payment solution products; did we?

2 DR. TADELIS: The only evidence that I found coming
3 from Google was that document where they claimed that 6 percent
4 is their break-even.

5 THE COURT: Okay. This is, I think, all that I need.
6 Is there anything else plaintiffs would like to raise?

7 DR. TADELIS: No. I spoke about the anti-steering. I
8 spoke about severing the tie, and then there are the other
9 elements of nondiscrimination based on -- similar to what
10 Dr. Bernheim explained. If you're not using Google Play
11 Billing, you shouldn't be penalized by not having access to
12 other Google products.

13 THE COURT: Okay. Defendants?

14 DR. GENTZKOW: Maybe just one point I'd add on the
15 anti-steering that Dr. Tadelis referenced.

16 The specific way that that's described in the proposed
17 injunction, the one little detail is it eliminates the ability
18 for Google to have minimal user experience and content
19 requirements, like making sure that the form that users are
20 shown is consistent with other billing -- like minimal security
21 requirements.

22 So I would just say in that anti-steering provision, there
23 is that provision in the state settlement which provides a
24 template of allowing steering of all sorts, advertising prices,
25 promotions, off-app purchases, letting users know about

1 Google's fees and so --

2 THE COURT: This is the reverse of the plaintiffs'
3 side. When people start on the defense side saying, "Of
4 course, we have to have minimum security provision," you can
5 drive a truck through that. I mean, that's all in the eye of
6 Google, and I can't do that.

7 I can't say -- I can't have equally vague -- I can't say
8 "disincentives" is too vague and at the same time say "minimum
9 security provisions" is not too vague. They're both equally
10 vague.

11 It's late in the day and I've forgotten the henhouse
12 analogy. It's giving the chicken the right to write its own
13 ticket. It's a ridiculously horrible metaphor, but I think you
14 get the point. Okay.

15 All right. Any larger points, Dr. Gentzkow?

16 DR. GENTZKOW: No. I think we're good.

17 THE COURT: Okay. All right.

18 This was tremendously helpful. I enjoyed the discussion.
19 I enjoyed the professionalism of the comments. I found it to
20 be of considerable aid to the Court, so let me thank both
21 sides.

22 Now, why don't we have the lawyers come up just for a
23 second.

24 Here is the one thing that may require some additional
25 testimony; and that is, I would like to know more about the

1 mechanics necessary for catalog access.

2 I don't know what that means in terms of what Google might
3 have to do. I don't know whether that is a huge amount of
4 work, whether it's something an engineer can do in an
5 afternoon, whether it's off-the-shelf technology, whether it's
6 custom work; I don't know anything, you know, about what that's
7 going to be.

8 So how would you like to handle that?

9 MR. BORNSTEIN: Well, as a starting point, Your Honor,
10 we do have evidence in the record already on that as --

11 THE COURT: Do we? We do.

12 MR. BORNSTEIN: As Dr. Bernheim said, we know this is
13 something that Google did through the Alleyoop mechanism in
14 connection with the deal that it had with Facebook and the
15 process it was working on through Project Banyan that
16 ultimately got stopped.

17 THE COURT: Well, the question I had, though, was
18 Alleyoop really exactly what catalog access would look like
19 here?

20 MR. BORNSTEIN: It's the same concept, Your Honor,
21 where there would be -- and Banyan is the same thing, where
22 there would be Google as the back end, it would host the apps.
23 It would have the commerce relationship with the -- with the
24 developer.

25 And then, when the user went onto Facebook, or in the

1 Banyan example, the Samsung store, there would be a process
2 through which the app would be served to the user who was on
3 one of those alternative sites or stores where Google was
4 working the back end.

5 It's the same -- the same concept. That's why, frankly,
6 we thought of the remedy this way in order to minimize the
7 problem. We knew Google had already achieved it.

8 THE COURT: Well, I just don't know whether that could
9 be ported to an infinite number of app stores.

10 MR. POMERANTZ: Your Honor, that is our --

11 THE COURT: I mean, I don't really know how that's
12 going to work. And it may be that simple, I don't know, but I
13 don't have evidence right now.

14 MR. POMERANTZ: Your Honor, there's significant
15 differences, you know, from a technical/mechanical sense for
16 what Epic is asking for here with respect to catalog access and
17 what happened with Alleyoop.

18 Alleyoop was a test with Facebook and, I think, one or two
19 others in which there had to be a lot of integration between
20 them. It never was rolled out. And it involved -- Facebook
21 already had a relationship with the developers who were
22 involved because they were advertising on Facebook.

23 This involves a totally different animal.

24 So I do think Your Honor needs evidence. If Your Honor is
25 seriously considering catalog access, and it sounds like you

1 are, we definitely need a record for Your Honor to decide
2 whether that really makes sense. We need both to look at the
3 technical implications of it, and we need to look at the
4 economic implications of it.

5 And more generally, Your Honor, I would request, given the
6 nature of the relief that Epic is seeking that was not
7 addressed at trial -- many of these things were not addressed
8 at trial.

9 THE COURT: Oh, I don't agree with that. I have been
10 very, very careful to tie all this together. I do not agree
11 with that at all, Mr. Pomerantz.

12 MR. POMERANTZ: Well, I'll give you --

13 (Simultaneous cross-talk.)

14 (Reporter interruption.)

15 THE COURT: I have been extraordinarily conscious of
16 tying everything we've discussed today to the evidence at
17 trial, and I think the record is going to amply demonstrate
18 that.

19 MR. POMERANTZ: If I could just --

20 THE COURT: This is just -- that is just not right to
21 say that this is coming out of left field. I don't agree with
22 that at all.

23 MR. POMERANTZ: I'll come back to home plate.

24 The catalog access that we're talking about now was not at
25 all discussed during the trial.

1 THE COURT: It's a remedy.

2 MR. POMERANTZ: I know. That's what I'm saying, we
3 need --

4 THE COURT: It was not part of -- it was not part of
5 the illegal conduct that --

6 MR. POMERANTZ: Well, that's the point, Your Honor.
7 When the remedy is going beyond the evidence trial, we need to
8 have the opportunity to put evidence in.

9 THE COURT: No, no. Okay. I -- it's not going beyond
10 the evidence at trial in the sense that it is untethered to the
11 illegal monopoly conduct. That is absolutely not true.

12 It is supplemental evidence I need to decide with respect
13 to the remedy that I'm inclined to order. That part is true.

14 But to suggest -- and maybe you're not, but I want to be
15 crystal clear here that this is something that is just dropping
16 out of the heavens and no one has ever had to look at it before
17 because it's completely unrelated to the illegal conduct is not
18 true. It is a consequence that I just need a little more
19 factual information on. So --

20 MR. POMERANTZ: I was focusing on the supplemental
21 evidence that Your Honor was discussing --

22 THE COURT: All right. What I would like to do is
23 probably have -- now, I don't know what you need to evaluate
24 whatever Google is going to say. Do you need a deposition? I
25 mean, what -- you need to have a fair opportunity to be

1 prepared to do your thing.

2 So how do you want to do that?

3 MR. BORNSTEIN: I agree with that, Your Honor, because
4 I don't know what Google is going to say. I have -- I mean, I
5 don't think Mr. Pomerantz intended to say, as he did, that
6 Alleyoop was never implemented. The record at trial showed
7 that it actually was implemented in the real world.

8 THE COURT: He did say it wasn't implemented.

9 MR. BORNSTEIN: Yeah -- no. I understand that. The
10 evidence showed what it showed. But it -- we absolutely will
11 need to be able to respond.

12 Your Honor has made the point, I think, fairly that the
13 primary response from Google to pretty much every remedy is:
14 Gosh, Your Honor, that's just so hard.

15 So I come to this with a fair degree of skepticism about
16 what we're hearing. And I do think we need to have opportunity
17 to have a fair --

18 THE COURT: All right. Well, let's -- let's just do a
19 plan here. Then I want to talk about the friction thing.

20 We've got to get this done. This has been going on for a
21 long time. So I want to balance that against your need to
22 be -- each side to be fully and fairly informed.

23 So here's one way of doing it -- and I'll leave it up to
24 you, you two are probably even better situated to suggest it
25 than I am -- but Google can make a proffer, you could do some

1 discovery based on that proffer, and deposition -- maybe, if
2 you wanted to retain an expert, I'm reluctant to do that, but
3 if you needed to, you might.

4 You can do it that way or you could -- I don't know what
5 all -- I don't know what plan B would be.

6 MR. BORNSTEIN: No, I think it's reasonable, Your
7 Honor, what you've suggested, because we do need to have the
8 proffer --

9 THE COURT: Okay.

10 MR. BORNSTEIN: -- and the information. And I was
11 going to get to the point -- Your Honor beat me there -- about
12 trying to be expeditious in making this happen. We're just
13 about, you know, five months from the jury verdict already.

14 THE COURT: Yeah. Some things happened in between, so
15 it's not entirely a slothful judge, if that's --

16 MR. BORNSTEIN: I've noticed, but was not about to
17 ask.

18 THE COURT: Okay. All right.

19 So why don't you do that, Mr. Pomerantz. Make a proffer
20 and tell your colleague here why you think it's technologically
21 and economically not feasible, or whatever you want to say, and
22 then we'll take a deposition. Make sure you've got somebody
23 ready to go and try to do it in 35 to 45 days. I mean --

24 MR. POMERANTZ: Your Honor, if I could -- if I could
25 ask a couple of things.

1 THE COURT: Sure.

2 MR. POMERANTZ: First, obviously, if when they -- they
3 should give us their response, and if they have a witness, be
4 it an expert or otherwise, we should have the ability to take
5 that person's deposition as well.

6 I would like to ask, Your Honor, if we could --

7 THE COURT: Well, they may not. It may just be
8 cross-examination.

9 MR. POMERANTZ: But it may not be, Your Honor. If
10 they don't have a witness, then that's fine.

11 THE COURT: All right. Okay.

12 MR. POMERANTZ: I would ask that we could do that with
13 respect to three specific remedies, because I think they all
14 involve the issues you're talking about: Catalog access, which
15 is the one Your Honor mentioned; the friction issue with
16 sideloading, which is --

17 THE COURT: No. I think that's -- listen. If you all
18 already agreed in the proposed state settlement that there's
19 going to be one screen and one screen only, I probably will
20 just look at that.

21 MR. POMERANTZ: If they're okay with that, then that's
22 fine. We don't need to go further.

23 THE COURT: It's really a matter more what I'm okay
24 with. If I'm okay with it --

25 MR. POMERANTZ: Okay. You'll let us know if there's

1 anything more --

2 THE COURT: Now, I want to look at that provision, and
3 if it truly is one screen, one screen only, "Here's what you're
4 doing. Be aware of it, and good luck," I'll probably think
5 about that. All right?

6 In fact, that's really all I need for right now. Now, if
7 I change my mind, I'll let you know.

8 MR. POMERANTZ: Your Honor, there's one other remedy
9 that I'd ask the opportunity to do something similar as catalog
10 access, and that's the distribution of third-party stores
11 through Play. That also involves some technology that doesn't
12 currently --

13 THE COURT: That's fine. You can fold that in. All
14 right? Just maybe -- we'll have tech day. Okay? So Tech
15 Part A will be -- Catalog Part B will be posting third-party
16 stores.

17 MR. POMERANTZ: Your Honor, if I could have one
18 moment.

19 THE COURT: Yeah. Or hosting third-party stores, I
20 should say.

21 MR. POMERANTZ: And, Your Honor, as part of
22 cataloging -- I think this included -- but as part of catalog
23 access, we would also like to address library porting. That
24 also has technology and economic issues. They couple it with
25 their catalog access. They're together in the proposed remedy.

1 THE COURT: I think it's less of an antitrust rather
2 than -- that's fine. If you want to put that in, that's fine.

3 MR. POMERANTZ: Thank you.

4 THE COURT: But just one and done on tech. That's it.
5 Okay?

6 So how much time would you like? Well, how much time for
7 your proffer, Mr. Pomerantz?

8 MR. POMERANTZ: Just one second.

9 (Pause in proceedings.)

10 MR. POMERANTZ: Your Honor, if we could have the
11 60 days instead of 45, that would be --

12 THE COURT: That's too long. You should be able to do
13 this much more quickly than that. I'll give you 30 days for
14 the proffer. I just can't -- look, it can't be that hard. I
15 mean, it just can't be that hard. So 30 days. Then what? A
16 deposition or --

17 MR. BORNSTEIN: I think, depending on what this
18 proffer looks like, certainly, at least one deposition. I
19 assume what they're going to do is they're going to give us
20 documents that support what they're saying to us, and they're
21 going to give us a witness who signs a declaration.

22 And if there are -- obviously, if there are multiple
23 witnesses, we'll need to hear from -- from each of them.

24 THE COURT: Well, here's what I'm imagining -- and
25 I'll leave it up to you -- but Mr. Pomerantz is going back to

1 Google, and they're going to ask an engineer to say, "What
2 would you have to do to make catalogs available to third-party
3 app stores? And what would you have to do to handle the
4 library -- to host competing app stores on the Google App in
5 terms of your technology?"

6 Just can't be that hard. I mean, five engineers,
7 two engineers, one engineer can easily do that in 30 days.
8 That person will be the witness, and then you'll depose that
9 person, and then I guess you'll need to tell Mr. Pomerantz
10 30 days later, "Here's why we disagree."

11 And if you have a witness, he'll get to depose him.

12 So I want to have this done by August at the latest.

13 Okay?

14 So 30 days for round -- for Google's proffer. 30 days for
15 your response, and then a week for any depositions related to
16 you. You can take -- depose them within a week, and I'll see
17 you back in August, I guess.

18 MR. BORNSTEIN: And if I could just be clear on the
19 scope of what we're talking about here, because the subject
20 Mr. Pomerantz raised is the technical problems, the
21 engineering.

22 THE COURT: Yes.

23 MR. BORNSTEIN: There's obviously been a lot of
24 discussion today about the doom and gloom of security and
25 what's going to happen to users, and I want to make sure that's

1 actually not what we're talking about on this proffer. We're
2 focusing on the engineering resources that would be required on
3 Google's side to make this happen.

4 THE COURT: What does Google have to do to make this
5 app store -- slew of app stores available?

6 MR. BORNSTEIN: Got it.

7 THE COURT: You know, that kind of a thing.

8 MR. POMERANTZ: Your Honor, he used the word
9 "technological." Also, the economics of that, so --

10 THE COURT: If you want to say "It'll cost us
11 \$8 billion," which -- whatever. Yeah. How much it costs, that
12 would be fine.

13 Listen, it's perfectly fine for a monopolist to pay some
14 money. That's not -- the fact that it costs the monopolists
15 some money to fix their wrongdoing, there's nothing wrong with
16 that; it's just if it's unreasonable. That's -- that's the
17 only thing. If it's an unreasonable amount, then I'll take a
18 look at it.

19 But if it turns out Google has to spend \$250,000 to make
20 this work, I don't think I'm going to have a problem with that.

21 MR. POMERANTZ: Your Honor, a couple of other things,
22 if I may.

23 THE COURT: Yeah.

24 MR. POMERANTZ: So the last time we had spoken on this
25 issue, you had deferred the question of further briefing which

1 we would request --

2 THE COURT: Further briefing?

3 MR. POMERANTZ: On the overall remedies. We have not
4 yet submitted briefs on the remedies. We submitted objections,
5 but that's different --

6 THE COURT: You admitted 90 pages.

7 MR. POMERANTZ: Your Honor, that was --

8 THE COURT: How much -- what more could you possibly
9 say? You didn't even have the right --

10 Well, anyway, go ahead.

11 MR. POMERANTZ: We would request -- I think there's
12 more that we would say in the form of a brief that you cannot
13 put into the form of an objection.

14 THE COURT: We'll have closing arguments. Okay?
15 We'll do that. That's going to be -- I don't need any more
16 paper.

17 I mean, I really doubt there's more that you can say than
18 in 90 pages, but you certainly won't -- at the end of this,
19 probably that same August day, we'll do an hour on tech. I
20 don't think it's going to take anything more than -- as long as
21 this did. This was very important, very useful to me, as I
22 said, and I'm grateful for the economists. Then we'll do
23 closing argument on it. And then I want to get this thing out
24 by, I don't know, Labor Day, maybe.

25 Forget I said that. I'm going to get it out as soon as I

1 can -- you know, promptly.

2 MR. POMERANTZ: Yes. Your Honor, we don't need to
3 decide this today, but I guess I'd like to plant a seed with
4 Your Honor.

5 THE COURT: Yes.

6 MR. POMERANTZ: So you're going to obviously write
7 this injunction, and it's complicated and --

8 THE COURT: Oh, I don't think it will be. Not in a
9 way that you may suggest.

10 MR. POMERANTZ: No. But I understand, things could
11 creep in inadvertently that you didn't intend, that we could
12 highlight.

13 Not to reargue anything, but just to look at the way you
14 worded something and point it out to you. So one thing we
15 would ask --

16 THE COURT: I'm not really inclined to draft by
17 committee, Mr. Pomerantz. So you can take it up on appeal if
18 you don't like it. Okay?

19 All right. Is that it for today?

20 MR. BORNSTEIN: Thank you very much for the time, Your
21 Honor.

22 THE COURT: Thank you. I really want to thank both of
23 you for making this happen, and it was -- I can't say enough
24 how much I appreciated it. Okay?

25 All right. Thanks a lot.

MR. POMERANTZ: Thank you.

MR. BORNSTEIN: Thank you.

THE CLERK: All rise. Court is in recess.

(Proceedings adjourned at 2:31 p.m.)

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CERTIFICATE OF REPORTER

I certify that the foregoing is a correct transcript
from the record of proceedings in the above-entitled matter.

DATE: Friday, May 24, 2024



Ruth Levine Ekhaus, RMR, RDR, FCRR, CSR No. 12219
Official Reporter, U.S. District Court

EXHIBIT GG

Pages 1 - 155

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

Before The Honorable James Donato, Judge

| | | |
|---------------------------|---|-----------------------------|
| IN RE GOOGLE PLAY STORE |) | |
| ANTITRUST LITIGATION, |) | |
| |) | NO. 21-md-02981-JD |
| |) | |
| THIS DOCUMENT RELATES TO: |) | |
| |) | |
| EPIC GAMES, INC., |) | |
| |) | |
| Plaintiff, |) | |
| |) | |
| VS. |) | NO. 3:20-cv-05671-JD |
| |) | |
| GOOGLE, LLC., et al., |) | |
| |) | |
| Defendants. |) | |
| |) | |

San Francisco, California

Wednesday, August 14, 2024

TRANSCRIPT OF PROCEEDINGS

STENOGRAPHICALLY REPORTED BY:
Kelly Shainline, CSR 13476, RPR, CRR
Official United States Reporter

1 in the Play Store. So, you know, I go and I look for some
2 tic-tac-toe app in the Play Store, you know, I'll see some
3 information about that. You know, what its rating is, who the
4 developer was, so on and so forth. That's not hidden. You
5 know, you can find that by searching for the app on the web,
6 for example, and then getting linked into the Play Store.
7 That's not secret information.

8 So nothing that we're talking about here in terms of
9 catalog access is sort of exposing, you know, secret corporate
10 jewels to the outside world. It's just saying: Let's make it
11 feasible for third parties to act as discoverability surfaces
12 for that data. But that in no way is asking for these
13 third-party stores to have some type of deep integration with
14 what the Play Store is doing and how it's using that data.

15 **MR. BACCETTI:** Let me respond to two things. The
16 first one, the read-only comment, and the second one was about
17 the information being supposedly public.

18 Specifically to the read-only, even if you're reading
19 something, if you implement in a way that is problematic,
20 there's a bug, you can take down things. So just the fact that
21 you're reading, you can still introduce a bug that a server has
22 a memory issue and it stops working and it ends up impacting
23 other operations. So there is -- this is extremely complex.
24 We're talking about millions and millions of lines of code. So
25 you can break things in ways that are unexpected, and that's

1 that we start to learn about some of the aspects that we missed
2 when we were building it. We'll get told by a developer, "Oh,
3 from my use case, the device now crashes when I try to, for
4 example, install my app because of the change you've made."
5 And then we have to sort of go back and make some engineering
6 changes, work out the solutions.

7 Beyond that, we go to public beta testing as you've
8 alluded to. The OEMs themselves will do testing. And so all
9 of this really does take more time than just the month. And I
10 think Professor Ernst agrees with that, that it's not simply
11 just a month to make the change.

12 And so when I talk about --

13 **THE COURT:** All right. Listen, I'm not saying it's
14 going to take 30 days, but I'm not -- 16 months, one year,
15 Google can do better than that. It's Google. You can do
16 better than that.

17 But, anyway, let me -- let's move on to -- because I do
18 want to get to oral argument, let's -- all right.

19 So you have 150 apps.

20 **PROFESSOR ERNST:** Yes.

21 **THE COURT:** You don't want to go through a painful
22 process of sitting there night after night after night doing
23 each one individually. How are we going to make life easy for
24 the user?

25 **PROFESSOR ERNST:** So the way to do that, Your Honor,

1 **THE COURT:** All right. Well, you're amending that
2 second bullet point to say "sharing a percentage of Google Play
3 revenues." In other words, if you had an actual dollar figure,
4 you don't have a problem with that?

5 **MR. BORNSTEIN:** If it's nonconditional, that's
6 correct, Your Honor.

7 **THE COURT:** All right. But just sharing a percentage
8 is the --

9 **MR. BORNSTEIN:** That's right.

10 **THE COURT:** Okay. All right.

11 All right. Go ahead.

12 **MR. BORNSTEIN:** So with our principles that we're
13 trying to achieve, I want to walk through some of the
14 objections that have been raised. I couldn't -- with triple
15 the time I couldn't go through every objection to each of the
16 different pieces.

17 I'm happy to answer any questions Your Honor has about
18 specific proposals within the remedy. I know it's a detailed
19 thing. I'm sure Your Honor has been through it and marked it
20 up. So if there's anything specific, I can jump right there;
21 but aside from that, I thought what would be helpful would be
22 to go through some of the more general objections that Google
23 has repeatedly raised again and again.

24 One of them I think we've just walked through to some
25 degree, and it's the one that came up most frequently back in

CERTIFICATE OF REPORTER

I certify that the foregoing is a correct transcript
from the record of proceedings in the above-entitled matter.

DATE: Wednesday, August 14, 2024

A handwritten signature in black ink, reading "Kelly Shainline", is written over a horizontal line.

Kelly Shainline, CSR No. 13476, RPR, CRR
U.S. Court Reporter